

1 CCCACCGCTC CGCATAAATC AGCACGGCGC CGGAGAACCC CGCAATCTCT GCGCCACACAA AATACACCGA CGATGCCCGA TCTACTTTAA GGGCTGAAAC
GGGTGCCAG GCGTATTAG TCGTGGCCG GCCTCTTGG GCGTTAGAGA CGCGGTGTT TTATGTGGCT GGTACGGGCT AGATGAAAT CCCGACITTTG

101 CCACGGGCCT GAGAGACTAT AAGAGCGTTC CCTACCGCCA TGAACAACG GGGACAGAAC GCCCGGGCCG CTTCCGGGGC CCGGAAAAGG CACGGGCCAG
GGTCCCGGA CTCTCTGATA TTCTCGCAAG GGATGGCGT ACCTTCTTGC CCCTGCTTG CCGGGCCCGG GAAGCCCCCG GCCCTTTTCC GTGCCGGGTC

1 M etGluGlnAr gGlyGlnAsn AlaProAla laSerGlyAl aArgLysArg HisGlyProGly

201 GACCCAGGGA GCGCGGGGA GCGAGGCTG GCGTCCGGT CCCCAGACC CTTGTGCTCG TTGTGCGCGC GGTCTCTCAG TTGGTCTCAG CTGAGTCTGC
CTGGGTCCCT CCGCGCCCCC CCGTCCGGAC CCGAGGCCCA GGGTTCTGG GAACACGAGC AACAGCGCG CCAGGACGAC AACACAGATC GACTCAGACG

22 ProArgG1 uAlaArgGly AlaArgProG lylleuArgVa lProLysThr LeuValleuV alValAlaAl aValleuLeu LeuValSerA laGluSerAla

301 TCTGATCACC CAACAAGACC TAGCTCCCA GCAGAGAGCG CCCCCACAAC AAAAGAGGTC CAGCCCTCA GAGGATTGT GTCCACCTGG ACACCATATC
AGACTAGTGG GTTGTCTTGG ATCGAGGGGT CGTCTCTCGC CCGGTGTTG TTCTCTCCAG GTCCGGGAGT CTCCTTAACA CAGGTGGACC TGTGGTATAG

55 LeuileThr GlnGlnAspL euAlaProG1 nGlnArgAla AlaProGlnG lnLysArgSe rSerProSer GluGlyLeuC ysProProG1 yHisHisle

401 TCAGAAGACG GTAGAGATTG CATCTCCTGC AAATATGGAC AGGACTATAG CACTCACTGG AATGACCTCC TTTTCTGCTT GCGTGCACC AGGTGTGATT
AGTCTTCTGC CATCTCTAAC GTAGAGACG TTATATACCTG TCCTGATATC GTGAGTGACC TTACTGGAGG AAAAGACGAA CCGACAGTGG TCCACACTAA

88 SerGluAspG lyArgAspCy sIleSerCys LysTyrGlyG lnAspTyrSe rThrHisTrp AsnAspLeuL eupheCysLe uArgCysThr ArgCysAspSer

501 CAGGTGAAGT GGAGCTAAGT CCCTGCACCA CGACCAGAAA CACAGTGTGT CAGTGGGAAG AAGGCACCTT CCGGGAAGAA GATTCTCCTG AGATGTGCCG
GTCCACTTCA CCTCGATTCA GGGACGTGGT GCTGGTCTTT GTGTACACA GTACAGCTTC TTCCGTGGAA GGCCTTCTT CTAAGAGGAC TCTACACGGC

122 GlyGluVa lGluLeuSer ProCysThrT hrThrArgAs nThrValCys GlnCysGluG luGlyThrPh eArgGluGlu AspSerProG luMetCysArg

601 GAAGTGCCG ACAGGTGTC CCAGAGGGAT GGTCAAGGTC GGTGATTGTA CACCCTGGAG TGACATCGAA TGTGTCCACA AAGAATCAGG CATCATCATA
CTTCACGGCG TGTCCACACG GGTCTCCCTA CCAGTCCAG CCCTAACAT GTGGACCTC ACTGTAGCTT ACACAGGTGT TTCTTAGTCC GTAGTAGTAT

155 LysCysArg ThrGlyCysP roArgGlyMe tValLysVal GlyAspCysT hrProTrpSe rAspIleGlu CysValHisL ysGluSerG1 yleIleile

701 GGAGTCACAG TTGCAGCCGT AGTCTTGATT GTGGCTGTGT TTGTTTGCAA GTCTTTACTG TGAAGAAAAG TCCTTCCTTA CCTGAAAAGG ATCTGCTCAG
CCTCAGTGT CACGTCCGCA TCAGAACTAA CACCGACACA AACAAACGTT CAGAAATGAC ACCTTCTTTC AGAAGGAAT GGACTTTCCG TAGACGAGTC

188 GlyValThrV alAlaAlaVa lValleuile ValAlaValP heValCysLy sSerLeuLeu TrpLysLysV alleuProTy rleuLysGly ileCysSerGly

FIG. - 1A

801 GTGGTGGTGG GGACCCCTGAG CGTGTGGACA GAAGTCACA ACGACCTGGG GCTGAGACA ATGTCCTCAA TGAGATCGTG AGTATCTTGC AGCCACCCA
CACCACCACC CTGGGACTC GCACACCTGT CTTCAGTGT TGCTGGACCC CGACTCTGT TACAGGAGTT ACTCTAGCAC TCATAGAACG TCGGGTGGGT
222 GlyGlyG1 yAspProGlu ArgValAspA rgSerSerG1 nArgProGly AlaGluAspA snValLeuAs nGluIleVal SerIleLeuG InProThrGln
901 GGTCCCTGAG CAGGAAATGG AAGTCCAGGA GCCAGCAGAG CCAACAGGTG TCAACATGTT GTCCCCCGGG GAGTCAGACC ATCTGCTGGA ACCGGCAGAA
CCAGGGACTC GTCTCTTACC TTCAGGTCTC CGTCTGCTC GGTGTCCAC AGTTGTACAA CAGGGGGCCC CTCAGTCTCG TAGACGACCT TGGCCGTCTT
255 ValProGlu GlnGluMetG luValGlnG1 uProAlaGlu ProThrGlyV alAsnMetLe uSerProGly GluSerGluH isLeuLeuG1 uProAlaGlu
1001 GCTGAAAGGT CTCAGAGGAG GAGGCTGCTG GTTCCAGCAA ATGAAGGTGA TCCCACTGAG ACTCTGAGAC AGTGCTTCCA TGACTTTTGA GACTTGGTGC
CGACTTTTCCA GAGTCTCCTC CTCCGACGAC CAAGGTCTGT TACTTCCACT AGGCTGACTC TGAGACTCTG TCACGAAGCT ACTGAAACGT CTGAACCCAG
288 AlaGluArgS erGlnArgAr gArgLeuLeu ValProAlaA snGluGlyAs pProThrGlu ThrLeuArgG InCysPheAs pAspPheAla AspLeuValPro
1101 CCTTTGACTC CTGGGAGCCG CTCATGAGGA AGTTGGGCCT CATGGACAAT GAGATAAAG TGGCTAAAGC TGAGGCAGCG GGCCACAGGG ACACCTTTGA
GGAAACTGAG GACCTTCGGC GAGTACTCCT TCAACCCGGA GTACCTGTGA CTCTATTTCC ACCGATTTCC ACTCCGTCG CCGGTGTCCC TGTGGAACAT
322 PheAspSe rTrpGluPro LeuMetArgL ysLeuGlyLe uMetAspAsn GluIleLysV alAlaLysAl aGluAlaAla GlyHisArgA spThrLeuTyr
1201 CACGATGCTG ATAAAGTGGG TCAACAAAAC CGGGCAGAT GCCTCTCTCC ACACCCCTGCT GGATGCCCTTG GAGACGCTG GAGAGAGACT TGCCAAGCAG
GTGCTACGAC TATTTACACC AGTTGTTTTG GCGGAGACAGG TGTTGGAGCA CCTACGGAAC CTCTGCGACC CTCTCTCTGA ACGGTTCTGTC
355 ThrMetLeu IleLysTrpV alAsnLysTh rGlyArgAsp AlaSerValH isThrLeule uAspAlaLeu GluThrLeuG lyGluArgLe uAlaLysGln
1301 AAGATTGAGG ACCACTTGTG GAGCTCTGGA AAGTTTCATGT ATCTAGAAGG TAATGCAGAC TCTGCCCTGTG CCTAAGTGTG ATTCTCTTCA GGAAGTGAGA
TTCTAACTCC TGGTGAACAA CTCGAGACCT TTCAAGTACA TAGATCTTCC ATTACGCTCTG AGACGGGAACA GGATTCACAC TAAGAGAAGT CCTTCACTCT
388 LysIleGluA spHisLeule uSerSerGly LysPheMetT yrLeuGluG1 yAsnAlaAsp SerAlaXaaS erOC*
1401 CCTTCCCTGG TTTACCTTTT TTCTGGAAA AGCCCAACTG GACTCCAGTC AGTAGGAAAG TGCCACAATT GTCACATGAC CCGTACTGGA AGAAACTCTC
GGAAGGGACC AAATGGAAA AAGACCTTTT TCGGGTTGAC CTGAGGTCAG TCATCCTTTC ACGGTGTAA CAGTGTACTG GCCATGACCT TCTTTGAGAG
1501 CCATCCAACA TCACCCAGTG GATGGAACAT CCTGTAACTT TTCACTGCAC TTGGCATTAT TTTTATAAGC TGAATGTGAT AATAAGGACA CTATGGAAT
GGTAGGTGT AGTGGGTGAC CTACCTTGTG GACATTGAA AAGTGACGTG AACCGTAATA AAAATATTTCG ACTTACACTA TTATTCTCTGT GATACCTTTA

FIG. 1B

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1601 GTCTGGATCA TTCCGTTTGT CCGTACTTTG AGATTGGTT TGGGATGTCA TTGTTTTTAC AGCACTTTTT TATCCTAATG TAAATGCTTT ATTTATTAT
CAGACCTAGT AAGGCAACA CGCATGAAAC ACCATACAGT AACAAAAGTG TCGTGAATAA ATAGGATTAC ATTTACGAAA TAAATAAATA

1701 TTGGGCTACA TTGTAAGATC CATCTACAAA AAAAAAAG GCGCGCGCG ACTCTAGAGT CGACCTGCAG AAGCTTGGCC GCCATGGCC
AACCCGATGT AACATTCTAG GTAGATGTTT TTTTTTTTTT CCGCGCGCG TGAGATCTCA GCTGGACGTC TTCGAACCGG CGGTACCGG

FIG._1C

1 MEQRGQNA PAASGARKRHGPGPREARGARPLRVPTLVVAALLLVSAESALITQQD
61 LAPQRAAPQQKRSPSEGLCPPGHHISEDGRDCISCKYQDYSTHWNLLFLCLRCTRCD
121 SGEVELSPCTTTRNTVCQCEGTFREEDSPEMCRKRTGCPRGWVKVGDCTPWSDIQVH
181 KESGIIIGTVAAVVLIVAVFVCKSLIMKKVLPLYKGICSGGGDPERVDRSSQRPGEAD
241 NVLNEIVSILQPTQVPEQEMEVEPAEPTGVNMLSPGESEHLLIEPAEASQRRRLVPA
301 NEGDPTELTRQCFDDFADLVPFDSWEPLMRKLGMDNEIKVAKAEAGHRDLYTMLIKW
361 VNKTGRDASVHTLLDALETIGERLAKQKIEDHLLSSGKFMYLEGNADSALS

FIG._2A

Apo2	FADL	VPPFDS	WEP	L	MR	K	L	G	L	M	D	N	E	I	K	V	A	K	A	E	A	-	-	G	H	R	D	T	L											
DR4	FANI	VPPFDS	W	D	Q	L	M	R	Q	L	D	L	T	K	N	E	I	D	V	V	R	A	G	T	A	-	-	G	P	G	D	A	L							
Apo3/DR3	VM	DA	V	P	A	R	R	W	K	E	F	V	R	T	L	G	L	R	E	A	E	I	E	A	V	E	V	E	I	G	R	-	-	F	R	D	Q	Q		
TNFR1	V	V	E	N	V	P	P	L	R	W	K	E	F	V	R	R	L	G	L	S	D	H	E	I	D	R	L	E	L	Q	N	G	R	-	C	L	R	E	A	Q
Fas/Apo1	I	A	G	V	M	T	L	S	Q	V	K	G	F	V	R	K	N	G	V	N	E	A	K	I	D	E	I	K	N	D	N	V	Q	D	T	A	E	Q	K	V

Apo2	Y	T	M	L	I	K	W	V	N	K	T	G	R	D	-	A	S	V	H	T	L	D	A	L	E	T	L	G	E	R	L	A	K	Q	K	I	E	D	
DR4	Y	A	M	L	M	K	W	V	N	K	T	G	R	N	-	A	S	I	H	T	L	D	A	L	E	R	M	E	E	R	H	A	K	E	K	I	Q	D	
Apo3/DR3	Y	E	M	L	K	R	W	R	Q	Q	P	-	-	-	A	G	L	G	A	V	Y	A	A	L	E	R	M	G	L	D	G	C	V	E	D	L	R	S	
TNFR1	Y	S	M	L	A	T	W	R	R	R	T	P	P	R	R	E	A	T	L	E	L	L	G	R	V	L	R	D	M	D	L	L	G	C	L	E	D	I	E
Fas/Apo1	-	Q	L	L	R	N	W	H	Q	L	H	G	K	K	E	A	Y	-	D	T	L	I	K	D	L	K	K	A	N	L	C	T	L	A	E	K	I	Q	T

FIG._2B

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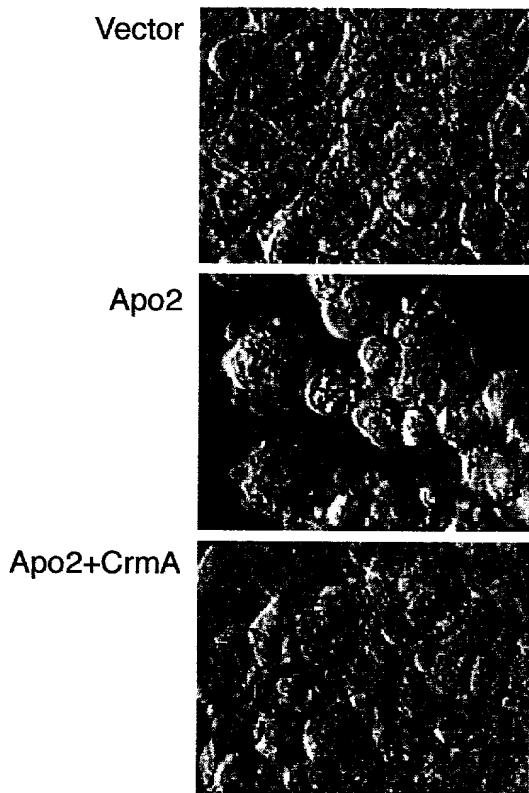
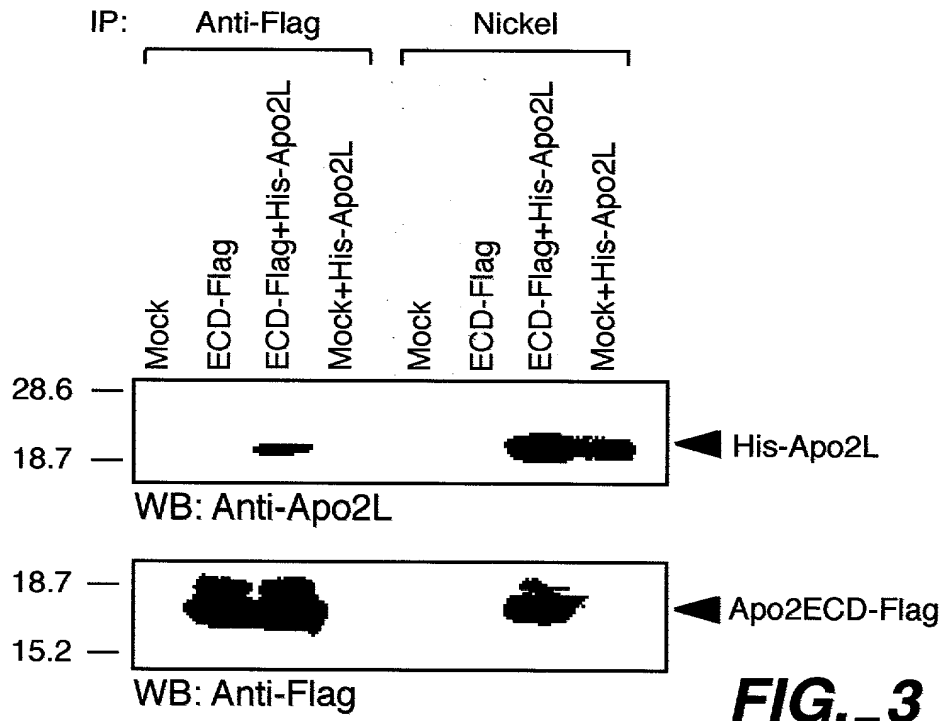


FIG._4A

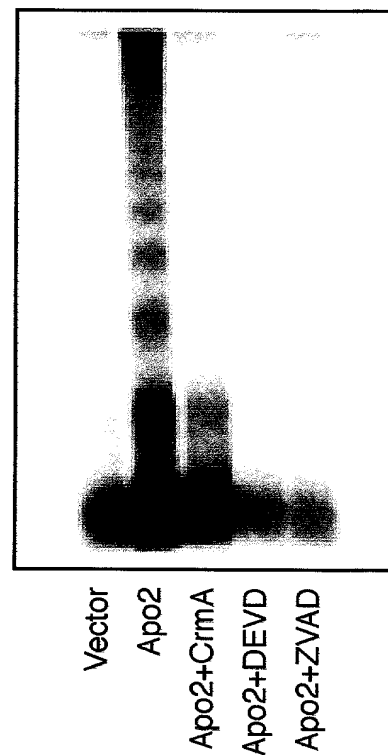


FIG._4B

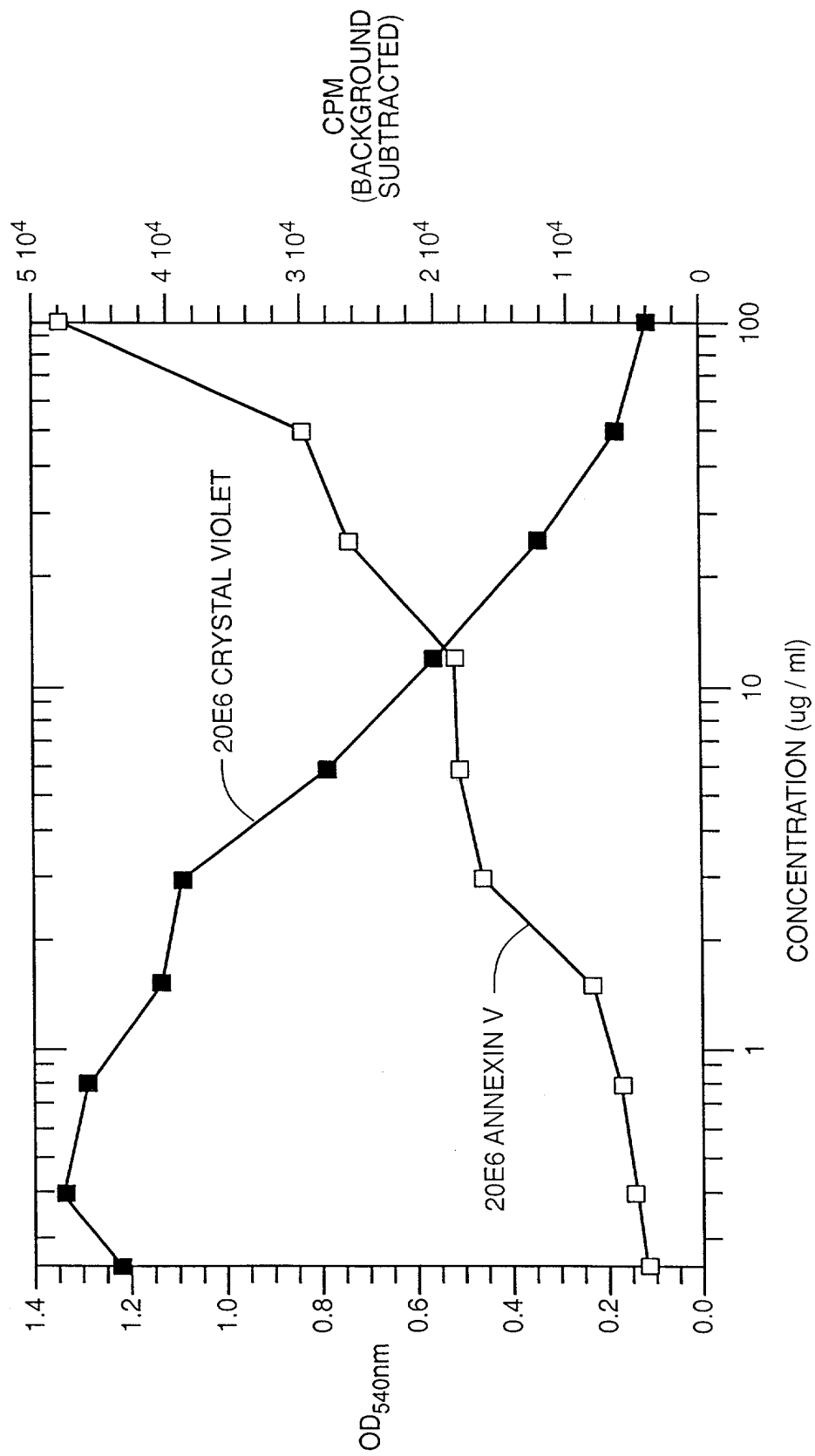


FIG. 14B



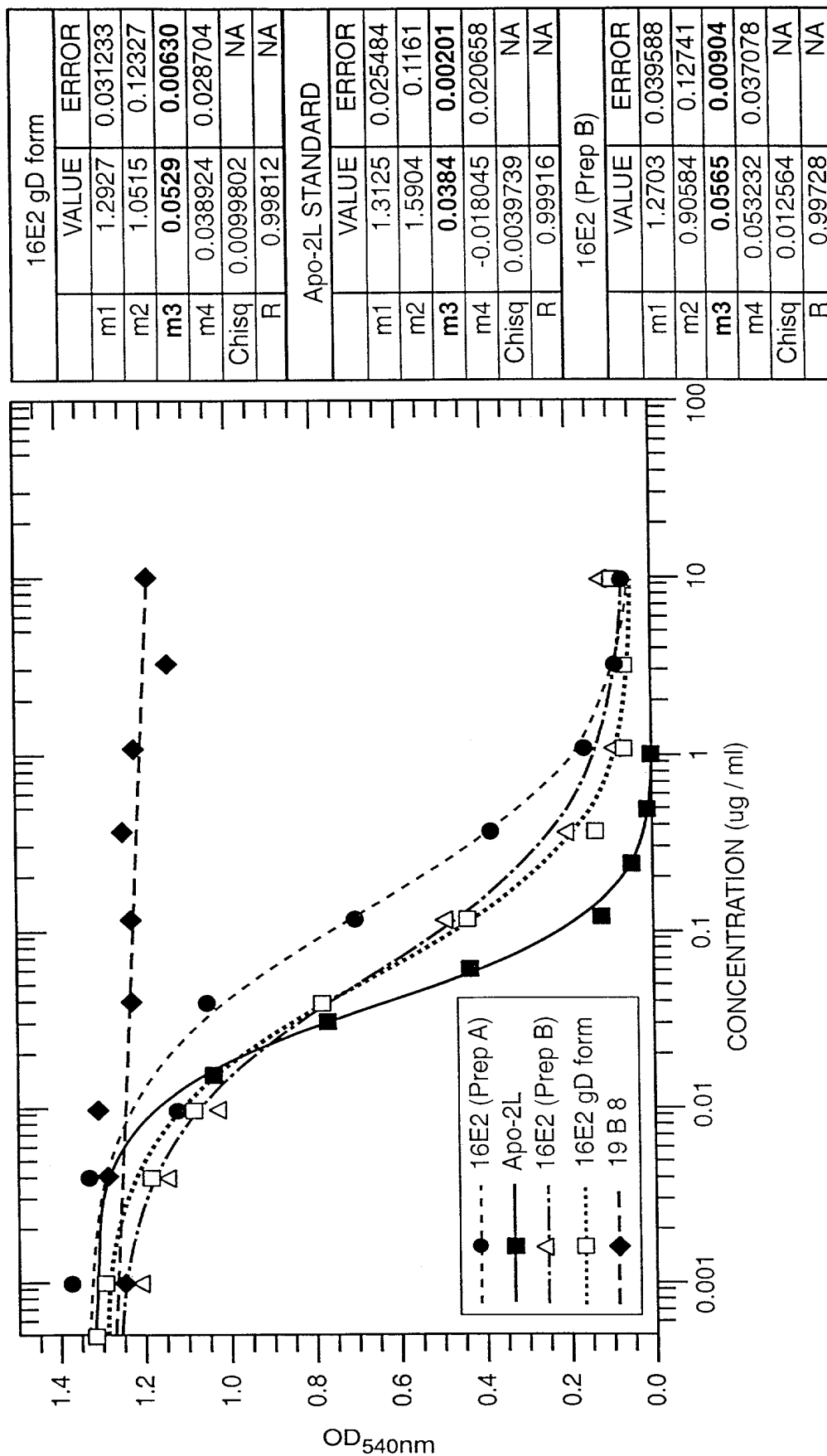


FIG._14C

ATGACCATGA TTACGCCAAG CTTTGGAGCC TTTT TTTTGG AGATTTTCAA 50
 CGTGAAAAAA TTATTATTCG CAATTCCTTT AGTTGTTTCCT TTCTATGCGG 100
 CCCAGCCGGC CATGGCCGAG GTGCAGCTGG TGCAGTCTGG GGGAGGTGTG 150
 GAACGGCCGG GGGGGTCCCT GAGACTCTCC TGTGCAGCCT CTGGATTAC 200
 CTTTGATGAT TATGGCATGA GCTGGGTCCG CCAAGCTCCA GGAAGGGGC 250
 TGGAGTGGGT CTCTGGTATT AATTGGAATG GTGGTAGCAC AGGATATGCA 300
 GACTCTGTGA AGGGCCGAGT CACCATCTCC AGAGACAACG CCAAGAAGCTC 350
 CCTGTATCTG CAAATGAACA GCCTGAGAGC CGAGGACACG GCCGTATATT 400
 ACTGTGCGAA AATCCTGGGT GCCGGACGGG GCTGGTACTT CGATCTCTGG 450
 GGAAGGGGA CCACGGTCAC CGTCTCGAGT GGTGGAGGCG GTTCAGGCGG 500
 AGGTGGCAGC GCGGGTGGCG GATCGTCTGA GCTGACTCAG GACCCTGCTG 550
 TGTCTGTGGC CTTGGGACAG ACAGTCAGGA TCACATGCCA AGGAGACAGC 600
 CTCAGAAGCT ATTATGCAAG CTGGTACCAG CAGAAGCCAG GACAGGCCCC 650
 TGTACTTGTC ATCTATGGTA AAAACAACCG GCCCTCAGGG ATCCCAGACC 700
 GATTCTCTGG CTCCAGCTCA GGAAACACAG CTTCCCTTGAC CATCACTGGG 750
 GCTCAGGCGG AAGATGAGGC TGACTATTAC TGTAAGTCCC GGGACAGCAG 800
 TGGTAACCAT GTGGTATTCG GCGGAGGGAC CAAGCTGACC GTCCTAGGTG 850
 CGGCCGCACA TCATCATCAC CATCACGGGG CCGCAGAACA AAAACTCATC 900
 TCAGAAGAGG ATCTGAATGG GGCCGCATAG 930

FIG. 15A

ATGACCATGA TTACGCCAAG CTTTGGAGCC TTTT TTTTGG AGATTTTCAA 50
 CGTGAAAAAA TTATTATTCG CAATTCCTTT AGTTGTTTCCT TTCTATGCGG 100
 CCCAGCCGGC CATGGCCGGG GTGCAGCTGG TGGAGTCTGG GGGAGGCTTG 150
 GTCCAGCCTG GGGGGTCCCT GAGACTCTCC TGTGCAGCCT CTGGATTAC 200
 CTTTAGTAGC TATTGGATGA GCTGGGTCCG CCAGGCTCCA GGAAGGGGC 250
 TGGAGTGGGT GGCCAACATA AAGCAAGATG GAAGTGAGAA ATACTATGTG 300
 GACTCTGTGA AGGGCCGATT CACCATCTCC AGAGACAACG CCAAGAAGCTC 350
 ACTGTATCTG CAAATGAACA GCCTGAGAGC CGAGGACACG GCTGTGTATT 400
 ACTGTGCGAG AGATCTTTTA AAGGTCAAGG GCAGCTCGTC TGGGTGGTTC 450
 GACCCCTGGG GGAGAGGGAC CACGGTCACC GTCTCGAGTG GTGGAGGCGG 500
 TTCAGGCGGA GGTGGTAGCG GCGGTGGCGG ATCGTCTGAG CTGACTCAGG 550
 ACCCTGCTGT GTCTGTGGCC TTGGGACAGA CAGTCAGGAT CACATGCCAA 600
 GGAGACAGCC TCAGAAGCTA TTATGCAAGC TGGTACCAGC AGAAGCCAGG 650
 ACAGGCCCTT GTACTTGTC TCTATGGTAA AAACAACCGG CCCTCAGGGA 700
 TCCCAGACCG ATTCTCTGGC TCCAGCTCAG GAAACACAGC TTCCTTGACC 750
 ATCACTGGGG CTCAGGCGGA AGATGAGGCT GACTATTACT GTAAGTCCCG 800
 GGACAGCAGT GGTAACCATG TGGTATTCGG CGGAGGGACC AAGCTGACCG 850
 TCCTAGGTGC GGCCGCACAT CATCATCACC ATCACGGGGC CGCAGAACAA 900
 AAACTCATCT CAGAAGAGGA TCTGAATGGG GCCGCATAG 939

FIG. 15B

ATGACCATGA TTACGCCAAG CTTTGGAGCC TTTTTTTTGG AGATTTTCAA 50
 CGTGAAAAAA TTATTATTCG CAATTCCTTT AGTTGTTTCCT TTCTATGCGG 100
 CCCAGCCGGC CATGGCCGAG GTGCAGCTGG TGCAGTCTGG GGGAGGTGTG 150
 GAACGGCCGG GGGGGTCCCT GAGACTCTCC TGTGCAGCCT CTGGATTAC 200
 CTTTGATGAT TATGGCATGA GCTGGGTCCG CCAAGCTCCA GGAAGGGGC 250
 TGGAGTGGGT CTCTGGTATT AATTGGAATG GTGGTAGCAC AGGATATGCA 300
 GACTCTGTGA AGGGCCGAGT CACCATCTCC AGAGACAACG CCAAGAACTC 350
 CCTGTATCTG CAAATGAACA GCCTGAGAGC CGAGGACACG GCCGTATATT 400
 ACTGTGCGAA AATCCTGGGT GCCGGACGGG GCTGGTACTT CGATCTCTGG 450
 GGAAGGGGA CCACGGTCAC CGTCTCGAGT GGTGGAGGCG GTTCAGGCGG 500
 AGGTGGCAGC GGCGGTGGCG GATCGTCTGA GCTGACTCAG GACCCTGCTG 550
 TGTCTGTGGC CTTGGGACAG ACAGTCAGGA TCACATGCCA AGGAGACAGC 600
 CTCAGAAGCT ATTATGCAAG CTGGTACCAG CAGAAGCCAG GACAGGCCCC 650
 TGTACTTGTC ATCTATGGTA AAAACAACCG GCCCTCAGGG ATCCCAGACC 700
 GATTCTCTGG CTCCAGCTCA GGAAACACAG CTTCCCTTGAC CATCACTGGG 750
 GCTCAGGCGG AAGATGAGGC TGACTATTAC TGTAAC TCCC GGGACAGCAG 800
 TGGTAACCAT GTGGTATTCG GCGGAGGGAC CAAGCTGACC GTCCTAGGTG 850
 CGGCCGCACA TCATCATCAC CATCACGGGG CCGCAGAACA AAAACTCATC 900
 TCAGAAGAGG ATCTGAATGG GGCCGCATAG 930

FIG._15A

ATGACCATGA TTACGCCAAG CTTTGGAGCC TTTTTTTTGG AGATTTTCAA 50
 CGTGAAAAAA TTATTATTCG CAATTCCTTT AGTTGTTTCCT TTCTATGCGG 100
 CCCAGCCGGC CATGGCCGGG GTGCAGCTGG TGGAGTCTGG GGGAGGCTTG 150
 GTCCAGCCTG GGGGGTCCCT GAGACTCTCC TGTGCAGCCT CTGGATTAC 200
 CTTTAGTAGC TATTGGATGA GCTGGGTCCG CCAGGCTCCA GGAAGGGGC 250
 TGGAGTGGGT GGCCAACATA AAGCAAGATG GAAGTGAGAA ATACTATGTG 300
 GACTCTGTGA AGGGCCGATT CACCATCTCC AGAGACAACG CCAAGAACTC 350
 ACTGTATCTG CAAATGAACA GCCTGAGAGC CGAGGACACG GCTGTGTATT 400
 ACTGTGCGAG AGATCTTTTA AAGGTCAAGG GCAGCTCGTC TGGGTGGTTC 450
 GACCCCTGGG GGAGAGGGAC CACGGTCACC GTCTCGAGTG GTGGAGGCGG 500
 TTCAGGCGGA GGTGGTAGCG GCGGTGGCGG ATCGTCTGAG CTGACTCAGG 550
 ACCCTGCTGT GTCTGTGGCC TTGGGACAGA CAGTCAGGAT CACATGCCAA 600
 GGAGACAGCC TCAGAAGCTA TTATGCAAGC TGGTACCAGC AGAAGCCAGG 650
 ACAGGCCCCCT GTACTTGTC TCTATGGTAA AAACAACCGG CCCTCAGGGA 700
 TCCCAGACCG ATTCTCTGGC TCCAGCTCAG GAAACACAGC TTCCTTGACC 750
 ATCACTGGGG CTCAGGCGGA AGATGAGGCT GACTATTACT GTAAC TCCC 800
 GGACAGCAGT GGTAACCATG TGGTATTCGG CGGAGGGACC AAGCTGACCG 850
 TCCTAGGTGC GGCCGCACAT CATCATCACC ATCACGGGGC CGCAGAACAA 900
 AAAC TCACT CAGAAGAGGA TCTGAATGGG GCCGCATAG 939

FIG._15B

FIG. 16